

Email:- [REDACTED]

Peter Sheridan, [REDACTED]

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18 FEB 2011

The Commissioner,
Queensland Floods Commission of Inquiry,
GPO Box 1738,
Brisbane,
Dear Madam,

SUBMISSION

I am a retired Civil Engineer having been, among others, a Shire Engineer at Oakey for ten years. I would like to make a few comments on various items that have been brought to light over the past couple of months.

The Weather Bureau has improved vastly over the last fifty years in their predictions and there is little doubt that, with the advances being made there, they will be able to predict more accurately the paths and intensities of storms and cyclones in the foreseeable future. It is absolutely vital that all their available information and anticipated rainfall be available to the controlling operators of water release from dams as quickly as humanly possible.

Most important, as far as Brisbane is concerned, is the operation of the Wivenhoe dam. There is no doubt that, without it, flooding in Brisbane would have been much worse. It is very easy, in hindsight, to say that the level of the dam should have been lowered to reduce flooding. In view of the past recent history of the dam when it was something like 20 % full, it would have been a brave engineer to release water on the grounds that the anticipated rainfall would refill the dam again. It would have been an equally "courageous" politician to order the same.

The rate of release was critical to the extent of the flooding. I understand that the dam went within about 30cms of overtopping with potentially disastrous results so the dam could not have held back any more flood in total. Quite a deal of the water which reached Brisbane was from Lockyer Creek and the Bremer River, both entering Brisbane River below the dam. It is noted that the flood level in Ipswich was a fair deal less than the level threatened by TV reports (I will ignore the 80 - 90 metre flood statement by one TV station) so it is painfully obvious that the information available on flood flows in the Bremer is absolutely inadequate. I would assume that the flood height anticipated would have been obtained from official sources and not from hearsay. I feel that you should give a lot of weight to monitoring the flow of the Bremer as it is a major catchment.

As a result of this misinformation, it is obvious that the engineer in control of Wivenhoe dam release would have modified outflow to counter this overestimation. Clearly, in my mind, there must be a considerable increase in monitoring of major streams in the Brisbane River catchment. The cost of these measures will be infinitesimal compared to other costs. It should be noted that, after the 1974 floods, there was a clear push to limit development of flood prone areas. When it was realized that it would never occur again, the levels of past floods were quickly forgotten and this information was only available if people asked for it. Perhaps, the likelihood of flooding could be made an integral part of Title Deeds.

Despite all thoughts to the contrary, catastrophic floods will recur in the Brisbane – Ipswich area unless major precautions are taken to minimize them. I suppose, the most obvious is to build more dams with considerable provision for flood surplus. This may be an additional source of water to the South East. In addition it is absolutely required that flood detention basins be placed right over the catchment in as many places as possible. It does not matter if the resultant water seeps into the aquifers as such water is invaluable for irrigation. Flood detention basins provide small lakes which enhance the environment to an inestimable degree.

I am not certain to what Department the design of flood detention basins should be allocated. Certainly, engineers skilled in hydrology are required for design but, of themselves, detention basins improve the whole environment to such a degree that they could easily come under the control of the Department of Environment. I have to emphasise that, although politicians are free to suggest locations, it is the engineers who have to decide where and how large such basins can safely be constructed. This would be an expensive undertaking but the reduction of flood destruction would make this a very economical one over time.

I now turn my attention to Toowoomba where I have lived for the past 30 years. About 10 years ago, the Water Engineer for the Toowoomba City Council pointed out that Toowoomba was in dire need of doing something to reduce flooding in the East and West branches of Oakey Creek. The whole city catchment area was being developed at a considerable rate and it would not be too long before the whole of the area is built up. He recommended that large detention basins be constructed along both creeks to limit flooding especially in the CBD. The Toowoomba City Council accepted his recommendations and proceeded on an annual basis to construct these basins which had the additional advantage that the character of the creek was improved vastly from what was a concrete drain to a very environmentally friendly stream. Toowoomba received many complementary remarks and awards from various Environmental Authorities.

When the City Council was dissolved in favour of the Regional Council, the new council, in their newfound knowledge, realized that Toowoomba did not require such stupid extravagance and, as a result, substantial damage was done to the various parts of the city close to the creeks in the last floods. Three years of detention basins have been omitted and, unfortunately, two persons lost their lives in the floods in Toowoomba and many residents believe that they would almost certainly have not been swept away if these detention basins had been constructed.

There is a degree of flooding problems in the township of Oakey. The town is tremendously protected by Cooby Creek dam which has overflowed only about 3 times since it was built 70 years ago. I believe it protects about 40% of the catchment of Oakey Creek. There has been some ill conceived criticism that the dam was somehow responsible for the flooding in Oakey but this is impossible.

About 35 years ago, the Regional Engineer for the then Irrigation and Water Supply Commission and the Toowoomba City Engineer investigated the possibility of placing the next dam for Toowoomba water supply in Oakey Creek following construction of Cressbrook Dam.

The Toowoomba Councillors, with their superior knowledge, told these two gentlemen that Cressbrook would supply Toowoomba with water for 100 years so the proposal lapsed. It does mean, however, that a location probably exists along Oakey Creek for a substantial detention dam to control flooding in Oakey and to alleviate, in a small way, flooding further downstream. The location was pointed out to me by the Regional Engineer but, as I was unfamiliar with the area in the then Rosalie Shire I would not be able to locate the site easily now.

And yet I will bring up another item. No one in their right mind could have imagined cars "surfing" down the West Creek in Toowoomba. When they reached the next culvert they jammed and caused a considerable blockages in the flow. The water diverted down Victoria Street and caused tens of thousands of dollars damage in Russell Street. This would have been avoided to a degree if the crossings were the more costly bridges rather than culverts. It would appear that, in certain areas, culverts are a nightmare at floodtime.

You can certainly realize that I am placing great importance on detention basins as a means of flood mitigation. They are expensive but have a great return when the next flood comes. They also have a very positive effect on the environment. I need not emphasise that the next flood is "when" not "if" and could be next year or 20 years or even 50 years but it will come. Urgent work is required by the three levels of Government.

There is no doubt that the absolute requirement of your Inquiry is more on the saving of lives rather than the economic viewpoint and, if I have been guilty of omitting this, I can assure you that I fully realize the importance of this aspect. I wish you all the best and it is my fervent hope that at least some of your recommendations will be accepted rather than the normal practice of politicians to place reports such as yours in the "too hard" file (aka WPB).

Yours Faithfully,


(P. Sheridan)